

REMARKS

The issues outstanding in the Office Action mailed July 9, 2008, are solely the rejections under 35 U.S.C. 103. Reconsideration of these issues, in view of the following discussion, is respectfully requested.

Claims 1, 3-4, 6-11 and 13-14 have been rejected under 35 U.S.C. 103 over Phillips '529. Reconsideration of this rejection is respectfully requested.

It is believed that the present Office Action misunderstands Applicants' previous arguments. The current rejection appears to argue that Applicants' position is that Phillips does not disclose a substrate which is mica or glass flakes. This is not accurate. Applicants' prior argument has been that Phillips does not disclose a *reflector layer* which is mica or glass flakes, but instead *requires* a metallic coating on mica or glass flakes to form the reflector layer. Metal reflects, mica and glass flakes do not, at least, for the purposes of Phillips reference.

It is accordingly again maintained that Phillips does not disclose an interference pigment having a substrate which is, e.g., mica or glass flakes, and thereon a first layer of silica. Instead, patentees teach, for example at column 6, lines 40-52, that the "reflector layer" is metal, a metal alloy, or a combination thereof because of the high reflectivity and ease of use of such layers. As examples of metallic materials, patentees disclose aluminum, silver, copper, gold, platinum, tin, titanium, pilatium, nickel, cobalt, rodium, niobium, chromium and combinations thereof. Mica and glass flakes are not disclosed in this portion of the patent. Thus, at column 11, line 17-19 where mica is noted (see also Fig. 4) mica is employed as a core layer, or substrate, which is coated with a metal layer for reflectivity.

However, the Office Action argues that the present claims do not prohibit a metal layer between mica and silicone dioxide. Accordingly, claims have been clarified In order to indicate that the presently claimed pigments comprise a substrate coated thereon with a first layer on the substrate of silica. Thus, it is evident that it would not be obvious to one of ordinary skill in the art to delete the metal layer of the reference, since such would render the reference material unsuitable for its intended purpose.

Support for the present amendment may be found as follows:

page 6, second full paragraph, 1.11-16:

“...glass flakes...coating with an SiO₂ layer (layer (A)) “The SiO₂ coating protects the glass flake surface against chemical modification, such as swelling, leaching-out of glass constituents or dissolution in the aggressive acidic coating solutions.”

page 6, third full paragraph, 1.18-22:

“During the calcinations process, an intimate bond between the chemically related materials arises in the case of the glass flakes at the interface between glass body and precipitated-on SiO₂ , the precipitated-on SiO₂ sheath gives the substrates the requisite mechanical stability, ”

page 8, first paragraph, 1.1-3:

“Instead of layer (B), an interference system comprising alternating high and low refractive index layers (layer C) can also be applied directly to the SiO₂ layer.

page 9, 1.1-28:

Preferred interference pigments are listed containing substrates coated on the surface with a SiO₂ layer.

page 10, 1.29-31:

“The precipitation of the SiO₂ layer onto the substrate is generally carried out by addition of a potassium or sodium water-glass solution at a suitable pH.”

page 11, third paragraph, 1.25-31:

“Compared with the pigments from the prior art without an SiO₂ layer on the substrate ...”

page 11, 1.33-35:

“Compared with the teaching from WO 01/30920, crucial advantages with respect to gloss and mechanical stability of the pigments according to the invention only arise for SiO₂ as material for the first coating of the support.”

pages 15-27: Examples

Examples 1-5, 12-16: Glass flake + SiO₂+TiO₂ (rutile)

Comparative examples (Examples 6, 7, 17-19 without a first SiO₂ layer

Example 11: Al₂O₃ flakes + SiO₂ layer + TiO₂ (rutile)

Example 21: Glass flakes + SiO_2 + Fe_2O_3

Example 22: Glass flakes + SiO_2 + TiO_2 (rutile) + SiO_2 + TiO_2

Accordingly, it is respectfully submitted that Phillips does not suggest the present claims, and withdrawal of this rejection is respectfully requested.

Claims 5 and 11 have been rejected under 35 U.S.C. 103 over Phillips taken with PCT '235 (Steudel). Reconsideration of this rejection is also respectfully requested. Steudel is cited solely for the argument that it would be obvious to modify Phillips in order to include carbon black in the low refractive index layer. However, Steudel would also not motivate one of ordinary skill in the art to delete the reflective layer of the primary reference, since such would render the primary reference unsuitable for its intended utility. Accordingly, it is submitted that the combination of references fails to suggest the present claims, and withdrawal of this rejection is also respectfully requested.

Claim 12 has been rejected under 35 U.S.C. 103 over Phillips taken with Schmidt '355. Reconsideration of this rejection is also respectfully requested. Schmidt is employed solely for the argument that it would be obvious to use hydrolytic decomposition of metal salts in aqueous media as a method of producing materials in accordance with the invention. However, nothing in Schmidt would motivate one of ordinary skill in the art to delete the reflective layer in the primary reference. Accordingly, it is submitted that this combination also fails to suggest the present claims, and withdrawal of the rejection is respectfully requested.

Claims 1, 3-4, 6-7 and 9-14 have been rejected under 35 U.S.C. 103 over Bagala (U.S. 2004/023779) taken with Schmidt. It is argued, at page 8 of the Office Action, that Bagala discloses substrates coated with silica. In fact, Bagala specifically discloses substrates coated first with titanium dioxide, or iron oxide. See paragraph 19. The Applicants then generically disclose "other usable oxides" such as tin, chromium or zirconium oxides, as well as mixtures or combinations of oxides. The paragraph concludes that "any other known metal or combination of metal can be used." It is not seen that the patent suggests to one of ordinary skill in the art a system having a specified flake form substrate, with a first layer of silica thereon having a specified layer thickness, followed by a high refractive index coating and/or an interference system of alternating high and low refractive index layers. Thus, it is submitted that this

rejection should also be withdrawn.

Withdrawal of all rejections of record is respectfully requested.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,
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